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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,704	10/25/2000	Axel Thomsen	50246-171	1502

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EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/695,704

Applicant(s)

THOMSEN ET AL.

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 18 August 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

1. This communication is responsive to Amendment A, filed 8/18/2003.
2. Claims 1-8 are pending in this application. Claims 1 and 7-8 are independent claims.

This action is made non-final.

### *Specification*

3. Claims 1 and 7-8 are objected to because of the following informalities: the word "FIR" in these independent claims should be rewritten as "Finite Impulse Response". Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being obvious over Cabler et al. (U.S. 5,656,621) in view of Matlab ("Signal Processing Toolbox for Use with Matlab: Chapter 5 Interactive Tools").

Re claim 1, Cabler et al. disclose in Figure 39 an integrated circuit comprising: an analog to digital converter (900) and an FIR filter (902). Cabler et al. does not disclose an output mechanism selectively providing either only fully settled data from the FIR

filter or all data from the FIR filter, including unsettled data. However, Matlab discloses in pages 5-24 and 5-33 an output mechanism (signal browser of Figure in page 5-33) selectively providing either a partial/fully settle result by editing the time axis or a full result from the FIR filter by clicking full view button in the tool bar. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add an output mechanism selector in Figure 2 for selecting the desired results to the FIR filter as seen in Matlab's invention into Figure 1 of Cabler et al.'s invention because it would enable the operator to select the portion of the desired signals, to reduce the initial unsteady state, and to increase the immunity from the process variation.

Re claim 3, Cabler et al. do not disclose the output mechanism comprises an one or more bits on a register of the integrated circuit to which a user can set to control the selection of fully settled data from the FIR filter or all data from the FIR filter including unsettle data. However, Matlab discloses in Figures in pages 5-24 and 5-33 a windows of output the filtered data wherein the output data can be selectively output by editing the axis parameters in the edit boxes (Figure in page 5-33 wherein the edit boxes are manipulated to select only the portion of the desired data). These parameters must be stored in a register for carrying out the instruction. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add an one or more bits on a register for controlling the output filter data as seen in Matlab's invention into Figure 1 of Cabler et al.'s invention because it would enable to increase the performance for selectively outputting the desired portion of filter data.

Re claim 4, Cabler et al. further disclose one or more bits on a register of the integrated circuit are set over a serial port interface (570 in Figure 7).

Re claim 5, Cabler et al. further disclose the analog to digital converter is a delta sigma modular (900).

Re claim 6, Cabler et al. further disclose the FIR filter is a decimation filter (902).

Re claim 7, it is a design method of claim 1. Thus, claim 7 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 8, it is a fabricated method of claim 1. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 1.

#### ***Allowable Subject Matter***

6. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1 and 3-8 have been considered but are moot in view of the new ground(s) of rejection.

- a. The applicant argues in page 13 last paragraph for claim 4 that the serial EEPROM is a memory device but it's not a serial port.

The examiner respectfully submits that claim 4 requires one or more bits are set/transceive over a serial port interface. The cited serial EEPROM is a memory

device that communicates with the filters (514 or 516) serially through the control logic and external bus interface (568). The input/output of the EEPROM interface with the control logic and external bus interface is a serial port.

- b. The applicant argues in page 14 second paragraph for claim 5 that claim 5 is not directed to a delta sigma modulator ADC standing alone, but it is directed the invention of selecting the output filter data as a whole.

The examiner respectfully submits that Figure 39 disclose the cited delta sigma converter (900) along with filter (902 and 904) as cited in claim 5. The rejection under 103 for selecting the output filter data as cited in claim 1 is clearly rejected under the new reference above.

- c. The applicant argues in page 14 third paragraph for claim 6 that the cited reference has not been shown to teach or suggest a FIR decimation filter.

The examiner respectfully submits that Figure 39 disclose the cited FIR decimation filter (902) along with filter (904) as cited in claim 6. The rejection under 103 for selecting the output filter data as cited in claim 1 is clearly rejected under the new reference above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Chat C. Do  
Examiner  
Art Unit 2124

October 23, 2003



TODD INGBERG  
PRIMARY EXAMINER